

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

**VAN DAMME**

Atty. Ref.: 2752-42

Div.of Serial 09/403.559

Group: **Unassigned**

No.

Filed: May 1, 2001

Examiner: **Unassigned**

For: **A DEVICE FOR PERFORMING AN ASSAY, A METHOD FOR MANUFACTURING SAID DEVICE, AND USE OF A MEMBRANE IN THE MANUFACTURE OF SAID DEVICE**

May 1, 2001

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

## **PRELIMINARY AMENDMENT**

Preliminarily amend the above-identified application as follows

## IN THE SPECIFICATION:

Amend the specification as follows:

Insert the attached Sequence Listing in place of the Sequence Listing contained with the originally-filed application.

**IN THE CLAIMS:**

Amend the claims as follows.

Cancel Claims 1-16, without prejudice.

--17. (new) A device for performing an assay, which device comprises a substrate having through-going channels, said channels opening out on a surface and being oriented essentially perpendicular to the surface for sample application, the channels in at least one area of the surface for sample application being provided with a first binding substance capable of binding to an analyte, wherein the substrate is an

electrochemically manufactured metal oxide membrane and the first binding substance is within the through-going channels in the substrate.

18. (new) The device according to claim 17, wherein the first binding substance is chosen from the group consisting of a nucleic acid probe, an antibody, an antigen, a receptor, a hapten and a ligand for a receptor.

19. (new) The device according to claim 17, wherein the first binding substance is covalently bound to the substrate.

20. (new) The device according to claim 17, wherein the metal oxide membrane is comprised of aluminum oxide.

21. (new) The device according to claim 17, wherein the first binding substance is synthesised in situ.

22. (new) The device according to claim 21, wherein a compound for synthesising the first binding substance is applied to a particular area using ink-jet technology.

23. (new) The device according to claim 22, wherein the compound is applied using electrostatic attraction.

24. (new) The device according to claim 17 wherein the first binding substance is applied to a particular area using ink-jet technology.

25. (new) The device according to claim 24, wherein the first binding substance is applied using electrostatic attraction.

26. (new) A kit comprising a device according to claim 17, and a detection means for determining whether binding has occurred between the first binding substance and the analyte.

27. (new) Kit according to claim 26, wherein the detection means comprises a second binding substance provided with a label.

28. (new) The kit according to claim 27, wherein the label is capable of inducing a color reaction or capable of bio- or chemo- or photoluminescence.

29. (new) A method for the detection of an analyte in a sample, comprising the steps of

- a) contacting the sample with a device according to claim 17,
- b) allowing binding to take place between the first binding substance and the analyte to be detected, and
- c) detecting whether binding has occurred between first binding substance and analyte.

30. (new) The method of claim 29 wherein the analyte comprises nucleic acid.

31. (new) The method of claim 30, wherein the nucleic acid is derivable from human immunodeficiency virus.--

**VAN DAMME**  
Div. of Serial No. 09/403,559

**REMARKS**

The specification has been amended to include the Sequence Listing filed with the parent application Serial No. 09/403,559. The Office is requested to use the computer readable copy of the Sequence Listing from the parent application Serial No. 09/403,559, for the above-identified application. The attached paper copy of the Sequence Listing is the same as the computer readable copy of the Sequence Listing filed in the parent application Serial No. 09/403,559. No new matter has been added.

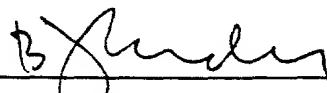
The claims have been amended above to recite the allowed claims of the parent application Serial No. 09/403,559. The present application has been filed to ensure consideration of the art previously cited in the parent application for which the applicants desire to be printed on the face of the patent. See, Rule 312 Request dated April 5, 2001, in the parent application Serial No. 09/403,559 and MPEP § 609.

An early and favorable Action on the merits is requested.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



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